

the prestressing strands at mid-span and five feet in either side from mid-span to measure long-term strains, see Figure 3.18. A typical Roctest EM-5 VWG is shown in Figure 2.9. Each VWG contains a thermistor that measures temperature. The strains measured during curing will be discussed in Section 3.6.2.

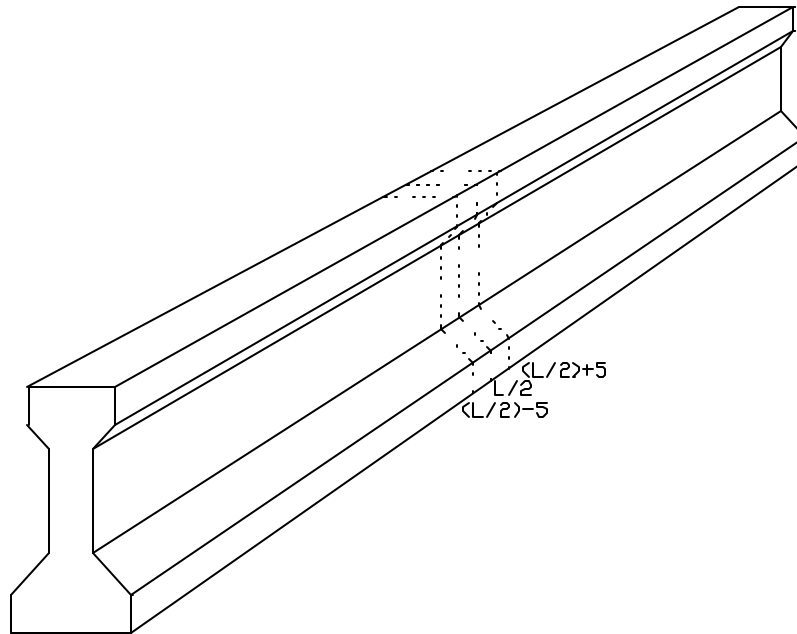


Figure 3.18 Locations of VWGs

3.3.4 Prestress Measurement and Losses

Pretensioning jacks are usually connected to a dial gage to determine the jacking force on a prestressing strand. However, the dial gage indicates only the force at the live (jacking) end of the casting bed. In a long casting bed, the force at the dead (anchoring) end usually is not the same as that at the live end due to strand relaxation, friction, slip, and temperature variations. Load cells placed at the dead end can measure the prestressing force after the jack is removed, as well as after curing, and immediately prior